User Manual / Installation Guide
AV Over Ethernet Gigabit Adaptor
Model No. ZE6000/ ZE6000+

Warning! It will cause malfunction if the AV Adaptor is operating with unspecified power supply adaptor or incorrect power voltage. Do not expose this unit in the rain or moisture environment to reduce the risk of fire or electric shock.

PRECAUTIONS

- Do not use the “AV adaptor” and “Power supply Adaptor” near water.
- The “AV adaptor” is featured with 75mm x 75mm and 100mm x 100mm VESA mount.
  For easy and safe use, it is recommended to mount ”AV adaptor” on the rear cover of monitor with VESA mount.
- The “AV Adaptor” should be operated by an Ethernet cable with standard RJ-45 connector on both ends. One end to the “AV adaptor”, the other end to host PC or server.
- Never spill liquids on the “AV Adaptor”.
- Do not attempts to service ”AV adaptor” yourself; opening or removing covers can degrade product EMC and performance. Please refer all servicing to qualified service personnel.
- For Wall mount “Power supply adaptor”, wall socket shall be installed near the equipment and shall be easily accessible.

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I. Introduction

ZE6000/ ZE6000^{+} are a Zero Client Audio/Video over Ethernet Adaptor, designed as an endpoint of a PC sharing solution such as Windows MultiPoint Server 2012.

With Windows MultiPoint Server 2012, it can work as a standalone workstation.

The solution enables a host PC(Server) to communicate with multiple and independent stations. Each station is consisted of one Adaptor (zero client) with a keyboard, mouse, and monitor connected, allowing multiple users to share the resources/computing of one single server.

By simple Ethernet connection, the server provides each station user with a familiar and independent Windows® experience.

ZE6000^{+} is a ZE6000 add with embedded access code, provides additional Phistek special software application, such as eSignage^{+}.

➢ Features

- **Simple Ethernet connection**
  ZE6000/ ZE6000^{+} connect to Host server through Ethernet cable connection, this type of connection can exceed the length limit of other signal connection such as VGA, USB. This also gives the flexibility of system layout.
- **Simple plug and play**
  Just attach a keyboard, mouse, and monitor to your ZE6000/ ZE6000^{+}, and connect it to the host server.
  A station is set up easily and ready for use right away
- **Easy and convenient installation**
  Designed with VESA standard mounting on the adaptor box;
  75mm x 75mm and 100mm x 100mm
- **Provides three types of video signals for end user to select**
  DVI (through a DVI to DVI cable)
  VGA (by an attached DVI to VGA dongle)
  HDMI (through a DVI to HDMI cable)
- **Reset:** To reset IP address
- **Audio Line out**
- **Headphone out**
- **Microphone in/ou**t

➢ Unpack the Adaptor

- Put the AV Adaptor on a clean surface; make sure the box in upright position.
- Remove packing materials from inside of box.

- **Check accessory**

  Please make sure the entire accessory is included:

DVI to VGA Dongle

DC 12V Power Adaptor

ZE6000 User Guide &
Driver CD

OR

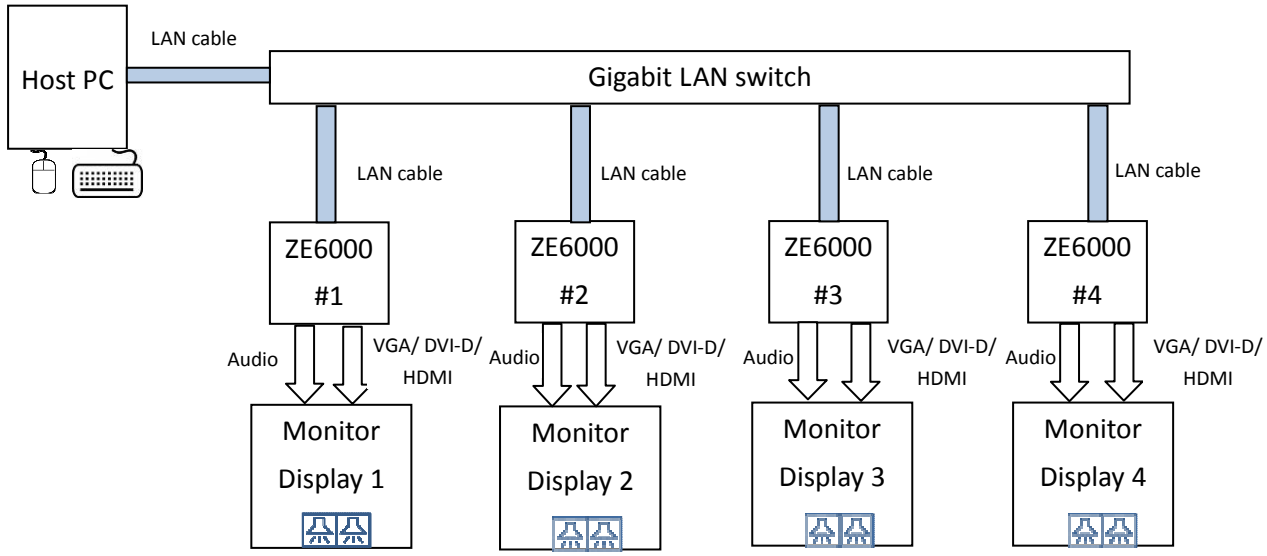
ZE6000^{+} User Guide &
Driver CD

II. Recommended network application and setting:

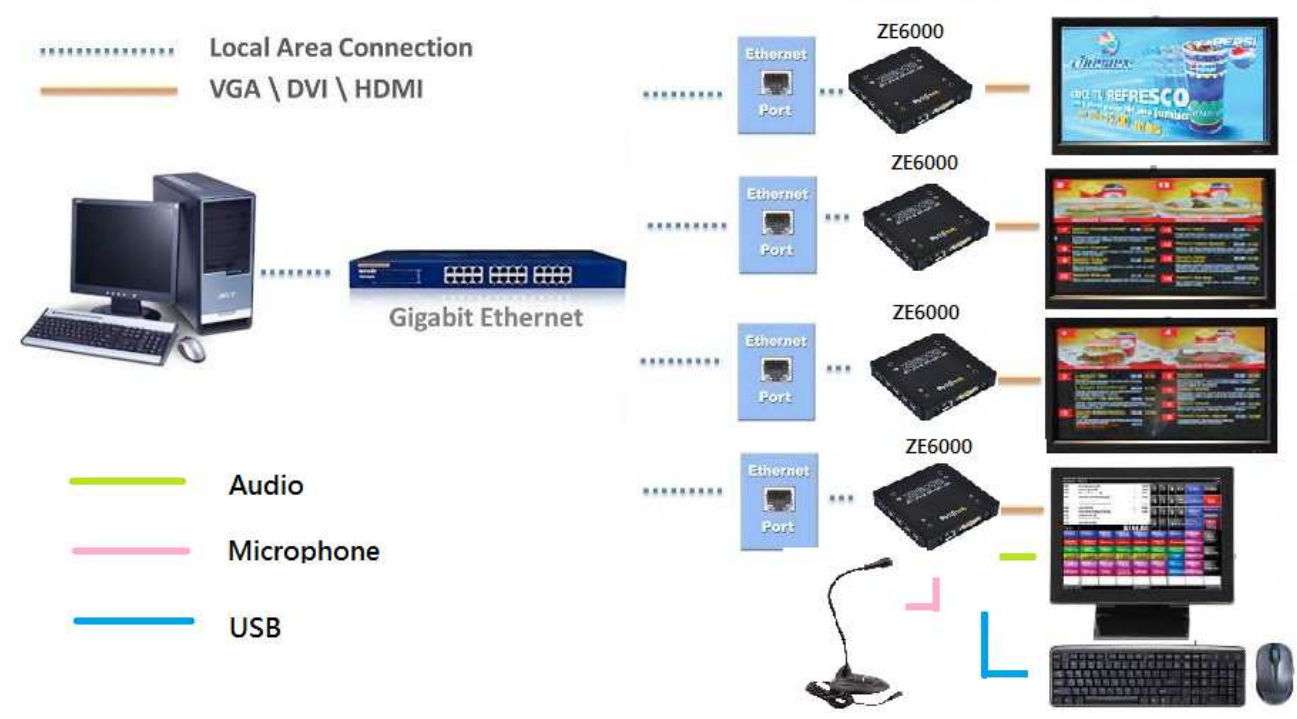
The Phistek ZE6000/ ZE6000^{+} can be configured to the following modes diagram:

- ***Basic Extended mode,***

  Multiple extended displays block diagram :

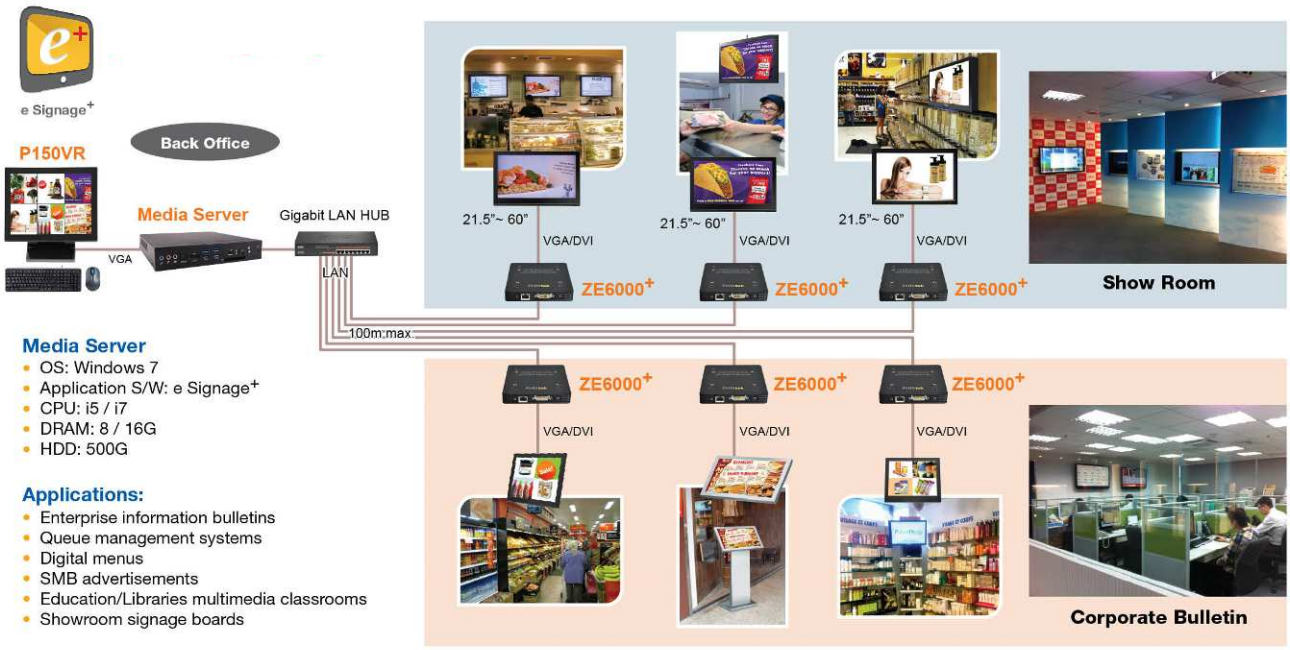


- ***Zero Client With WMS2012 Multipoint***



Ethernet(LAN) network connection

- **ZE6000+ apply with Phistek eSignage+**



Media Server
- OS: Windows 7
- Application S/W: e Signage+
- CPU: i5 / i7
- DRAM: 8 / 16G
- HDD: 500G

Applications:
- Enterprise information bulletins
- Queue management systems
- Digital menus
- SMB advertisements
- Education/Libraries multimedia classrooms
- Showroom signage boards

1. Basic Extended Mode (or Mirror Mode):

Please note that Extended mode only provide extended function of video display, audio, USB ports.

1.1 Set Up Procedures:

1.1.1 Required Hardware Ingredients

The ZE6000/ ZE6000+ Zero-Client: typically available directly from PHISTEK.

The host computer: should be scaled according to the usage scenarios

CPU	Intel i7	Intel i5	Intel i3	Inel Atom D525
DRAM	8G	8G	4G	2G
OS	Win7 64bit	Win7 64bit	POS Ready7	POS Ready2009
Video 1080p	8 sets(max)	6 sets(max)	0 set	0 sets
Video 720p	8 sets(max)	8 sets(max)	1 sets(max)	0 sets
Photo 1920x1080	8 sets(max)	8 sets(max)	4 sets(max)	4 sets(max)

1.1.2 The LAN network: 10/100M or 1000M Ethernet, recommend Gigabit-Switched, and ideally having a dedicated switch per each cluster.

1.2 Installation:

Part 1: Host PC Windows OS Preparations

1) Host PC to run Windows-Update and install all available updates.
2) Make sure to install the latest driver for the graphic card (applies to on-board as well).
3) Turn off Windows-Update device driver searching
   http://technet.microsoft.com/en-us/library/cc753091.aspx
4) Set Host PC TCP/IPV4 to DHCP

Part 2: Elite Driver installation:

1) Install Elite Driver: (See Page 13, Section III, 2.0)
2) Reboot your computer

Part 3: SMSC Driver Installation & prepare Zero-Client

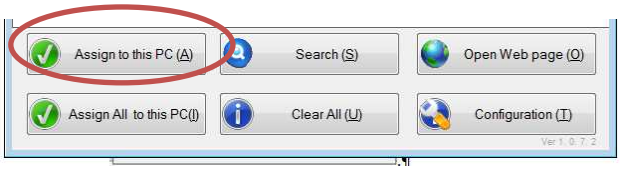
1) Install SMSC display driver: (See Page 15 Section III, 3.0)
2) Connect all Zero-Clients to Ethernet Switch.
   Connect monitors, and sound devices to each client.
3) Launch the Network USB Setting Utility from its desktop shortcut.

Network USB Setting Utility shortcut

4) This program will search for ZE6000/ZE6000+ Zero-Clients:

5) Click “Configuration”, tick “DHCP”

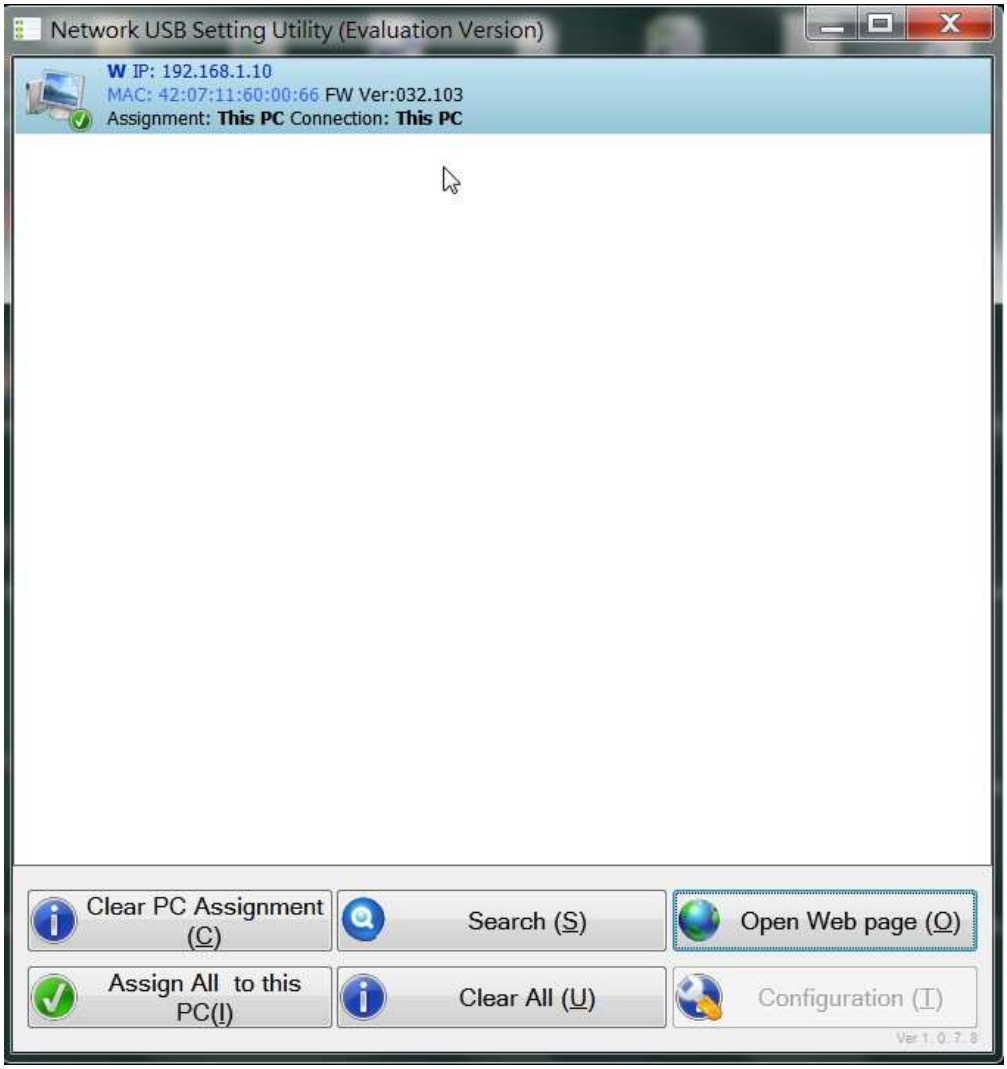
6) Per each cluster, per each client terminal:
Click “Assign to this PC”:



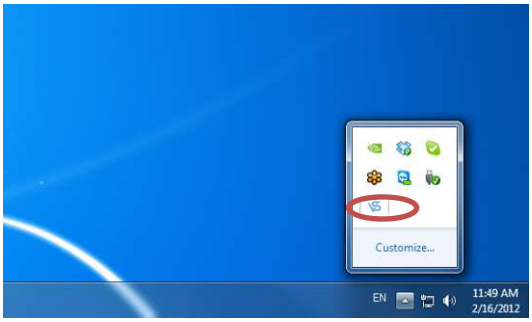
7) Windows will identify and install USB sound driver.

8) A dialog may pop up – search for Zero Client software – click cancel.

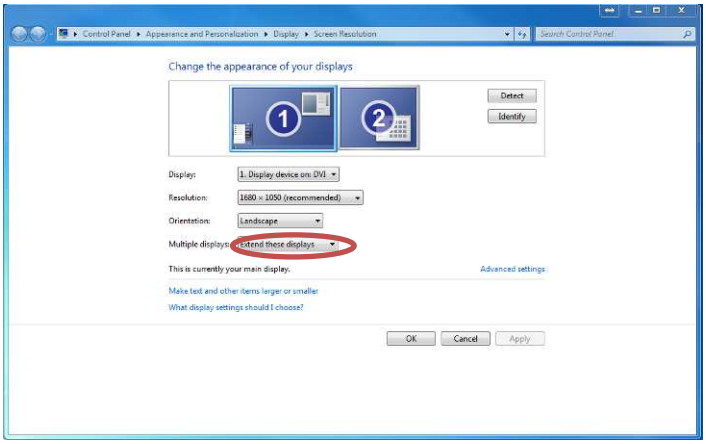
9) Each client connection will be completed as below:


Network USB Setting Utility (Evaluation Version)
W IP: 192.168.1.10
MAC: 42:07:11:60:00:66 FW Ver:032.103
Assignment: This PC Connection: This PC
Clear PC Assignment (C)
Search (S)
Open Web page (O)
Assign All to this PC(I)
Clear All (U)
Configuration (T)
Ver 1. 0. 7. 8

10) At this stage, you should be able to see all the assigned monitors in active Windows Desktop mode.



11) Start “ViewSpan Configuration” in the Task-Bar.
Make sure to set all zero client monitors as “Extended”



12). Set up maximum no. zero clients in application

After SMSC driver installation, the system will set number of zero clients in application at"4"

If user wants to connect for more clients, user need to execute "regedit.exe"

Simply input "regedit "to search this application.

Then follow the route:

HKEY_LOCAL_MACHINE/SYSTEM/CurrentControlSet/services/sgfxk :

MAxNumberOfUsbAdapters REG_DWORD 0x00000004 (4)

The default number is 4, click MAxNumberOfUsbAdapters to change number

The numbers of clients to use depend on the Host PC resources,

Recommend maximum number set <10

2. ZE6000+ extended mode with Phistek eSignage+ application software

2.1 With Phistek eSignage+, user can broadcast and monitor extended zero clients display on the Host PC control center (see details in eSignage+ application Doc.)

2.2 Drivers:

Follow "Basic extended mode" drivers installation, except Elite Driver is replaced by "eSignage+" driver

2.3 eSignage+ driver and eSignage+ user guide download,

Please use the CD attached, or mail to: sales@phistek.com or phistek@gmail.com to get download access code.

3. Zero Client with Windows MultiPoint Server 2012

3.1 With Windows MultiPoint Server 2012, zero clients can work independently as standalone PC

3.2 Pls visit Microsoft Website for Windows MultiPoint Server 2012 Evaluation. to get image and installation guide.

http://www.microsoft.com/en-us/download/details.aspx?id=35821

3.3 In addition to the image, pls visit Phistek website to download following drivers Elite Driver for wms2012:

GenericWMSZeroClientService_Setup_13_1217_S0122_G1042_Cert

SMSC driver for wms2012:

SetupSgfxWmsFbr-5_3_60_8411

Patch file:

WMS-KB2791647-ENU-x64

Please mail to: sales@phistek.com or phistek@gmail.com to get download access code.

3.4 The recommended PC System equipment:

Minimum base PC system running RDSH (formerly “Terminal Services”) desktops (supporting up to 4 lightly loaded stations):

- Dual Core Processor and 1 core or thread for each two stations
- 2 GB Memory and 0.5 GB of memory per station
- 20 GB disk space

III. Drivers Installation: Install drivers for extended mode

The attached CD includes three drivers for installation:

Elite USB Server (for extended mode) for ZE6000, or eSignage+ driver for ZE6000+

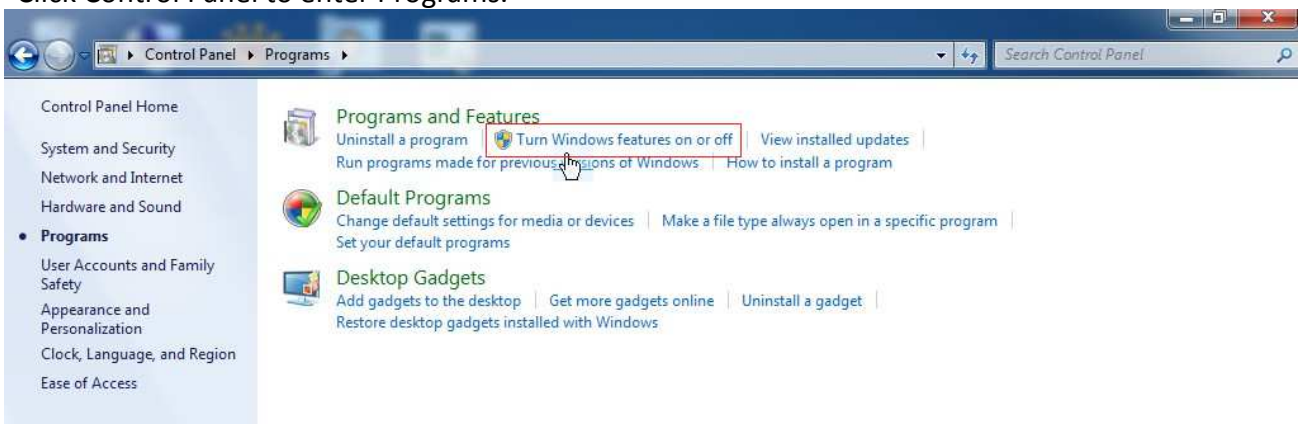
SMSC Driver (for extended mode)

EETI Touch Driver (For Touch workstation only)

1.0 eSignage+ need to open Microsoft Framework:

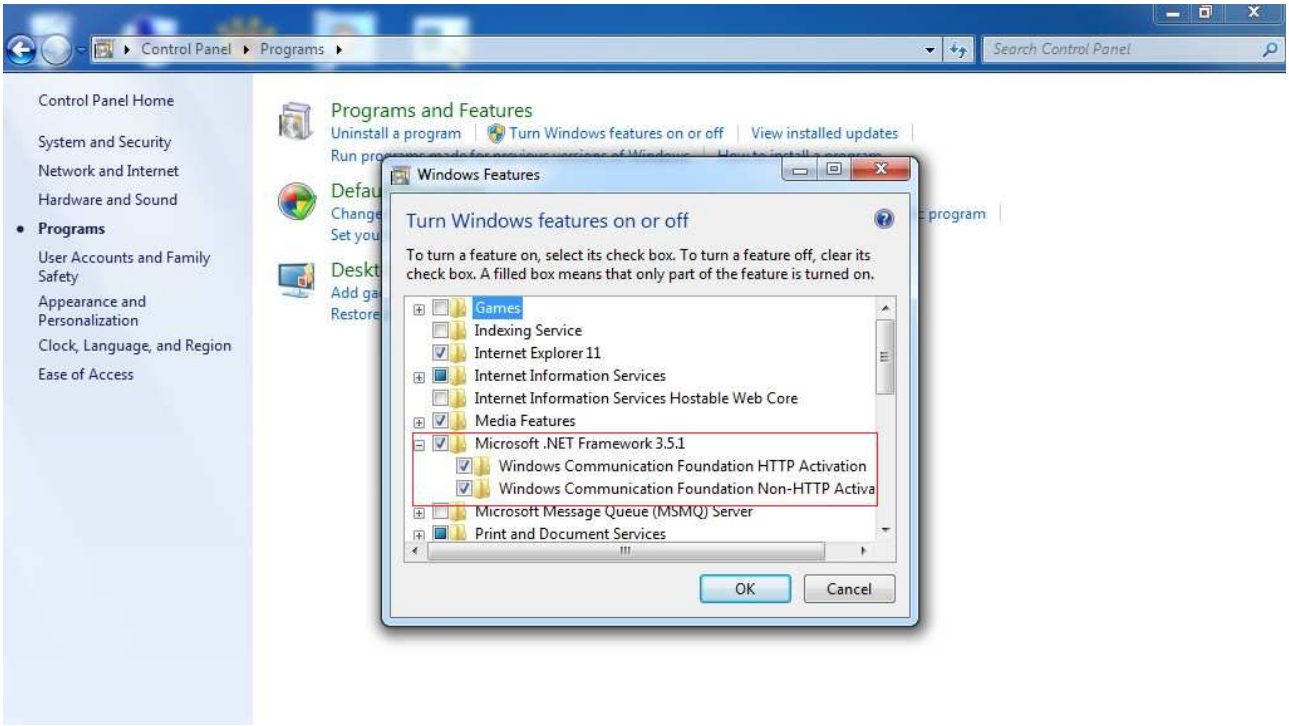
If you are using eSignage+ driver, you need to open Microsoft NET. Framework before Drivers installation

Click Control Panel to enter Programs.


Control Panel ▸ Programs ▸
Search Control Panel
Control Panel Home
System and Security
Network and Internet
Hardware and Sound
Programs
User Accounts and Family Safety
Appearance and Personalization
Clock, Language, and Region
Ease of Access
Programs and Features
Uninstall a program
Turn Windows features on or off
View installed updates
Run programs made for previous versions of Windows
How to install a program
Default Programs
Change default settings for media or devices
Make a file type always open in a specific program
Set your default programs
Desktop Gadgets
Add gadgets to the desktop
Get more gadgets online
Uninstall a gadget
Restore desktop gadgets installed with Windows

Find and turn on Microsoft. NET Framework (it shall be later than 3.5.1 version)

Please see the Fig. below.

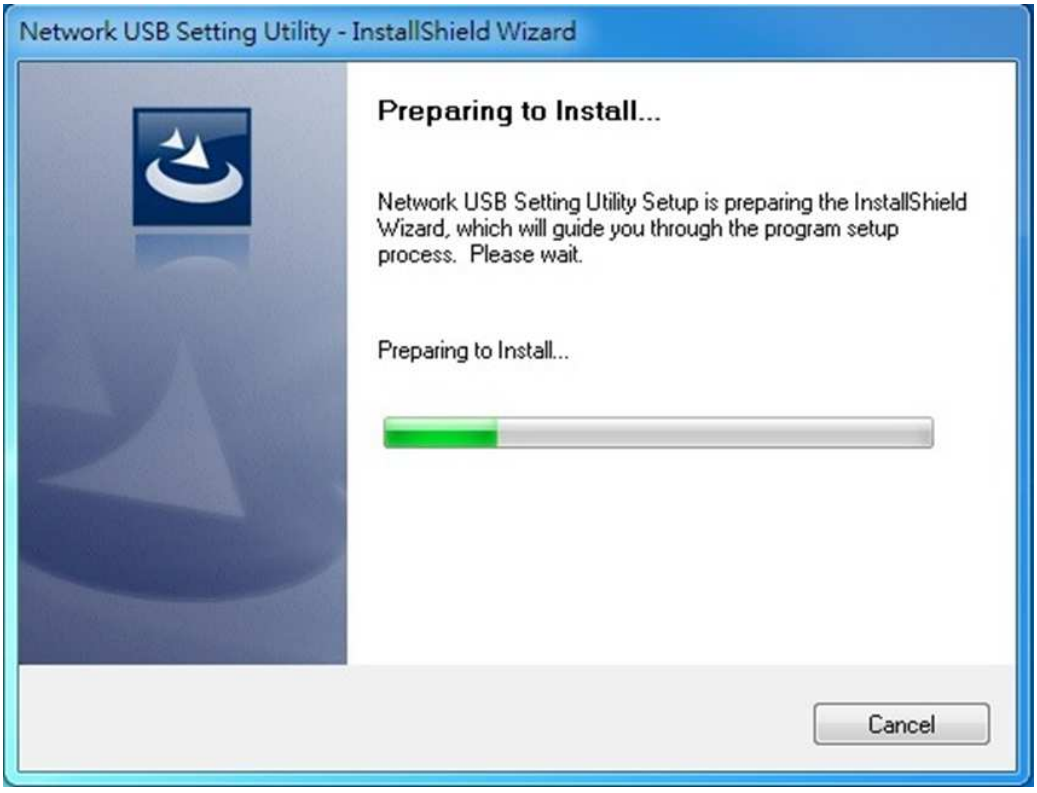

Control Panel ▸ Programs ▸
Search Control Panel
Control Panel Home
System and Security
Network and Internet
Hardware and Sound
Programs
User Accounts and Family Safety
Appearance and Personalization
Clock, Language, and Region
Ease of Access
Programs and Features
Uninstall a program
Turn Windows features on or off
View installed updates
Windows Features
Turn Windows features on or off
To turn a feature on, select its check box. To turn a feature off, clear its check box. A filled box means that only part of the feature is turned on.
Games
Indexing Service
Internet Explorer 11
Internet Information Services
Internet Information Services Hostable Web Core
Media Features
Microsoft .NET Framework 3.5.1
Windows Communication Foundation HTTP Activation
Windows Communication Foundation Non-HTTP Activa
Microsoft Message Queue (MSMQ) Server
Print and Document Services
OK
Cancel

2.0 Install Elite Driver: USB Server:

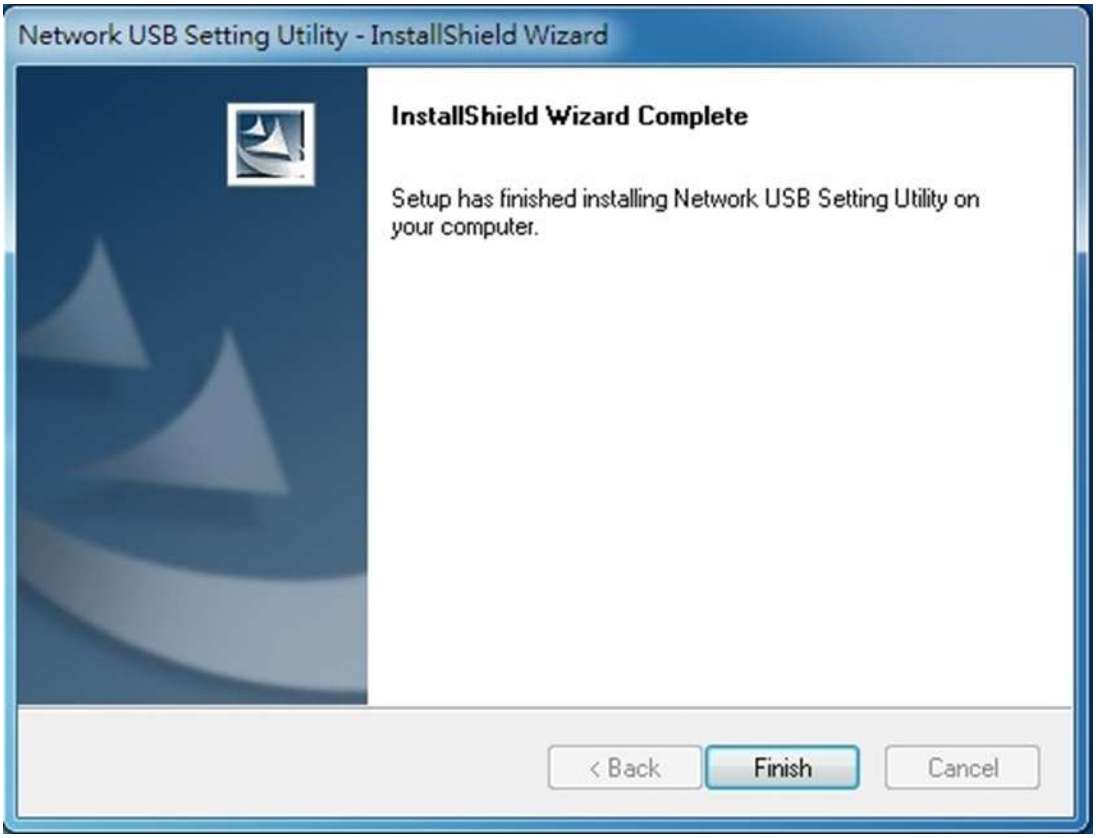
ZE6000: Elite USB Server

ZE6000+ :eSignage+ Driver

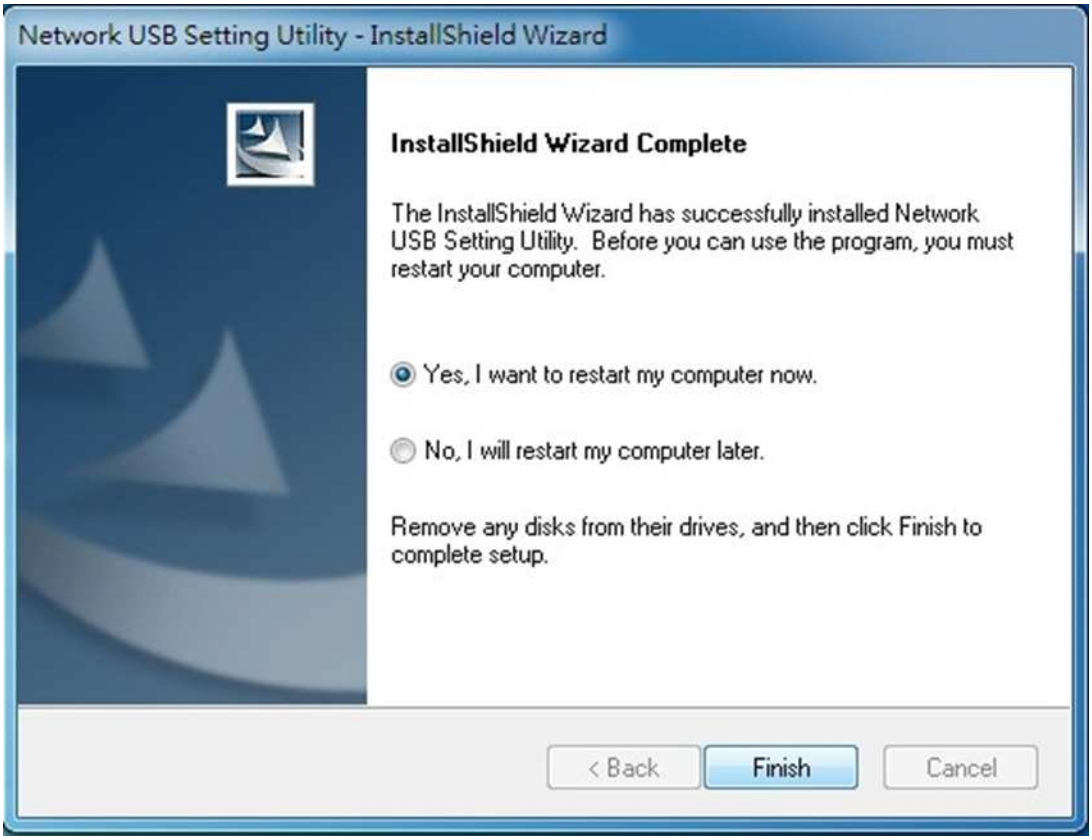
2.1 Installation is automatically run as below:


Network USB Setting Utility - InstallShield Wizard
Preparing to Install...
Network USB Setting Utility Setup is preparing the InstallShield Wizard, which will guide you through the program setup process. Please wait.
Preparing to Install...
Cancel

2.2 After installation, screen will display as below, please press “Finish”


Network USB Setting Utility - InstallShield Wizard
InstallShield Wizard Complete
Setup has finished installing Network USB Setting Utility on your computer.
< Back
Finish
Cancel

2.3 Screen will then display as below, please choose to restart your computer.

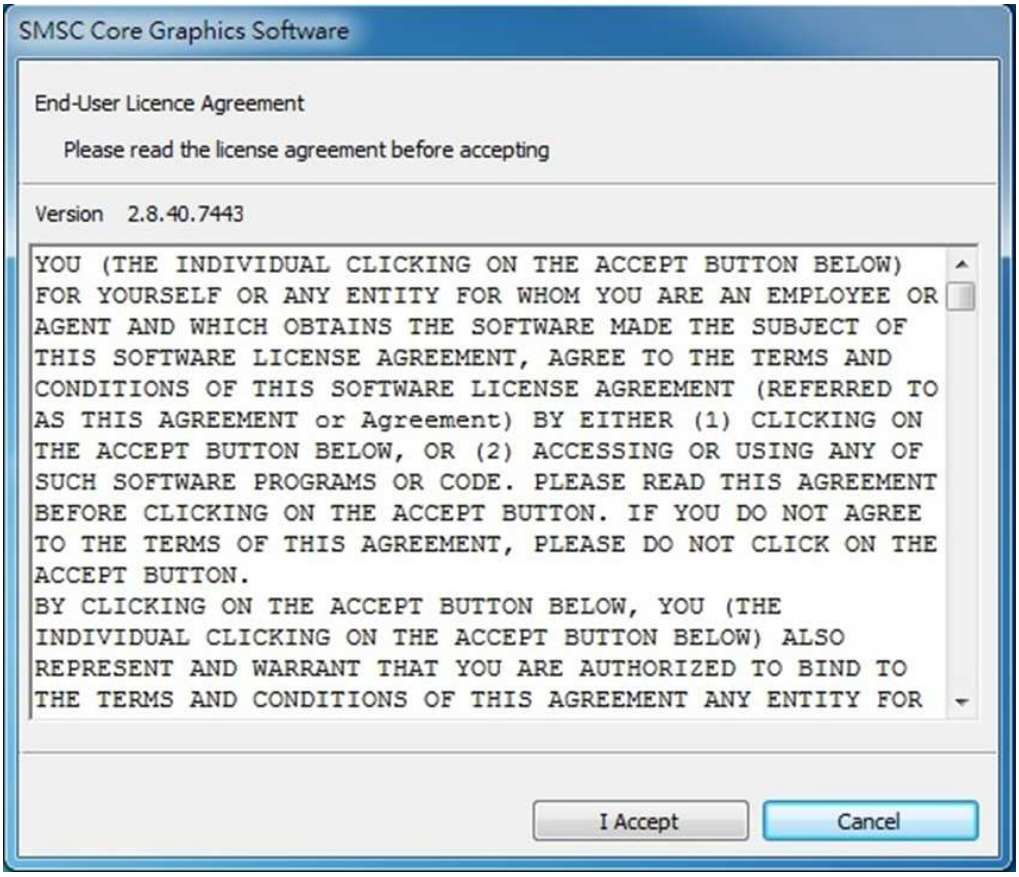

Network USB Setting Utility - InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed Network USB Setting Utility. Before you can use the program, you must restart your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
< Back
Finish
Cancel

3.0 Install SMSC Driver:

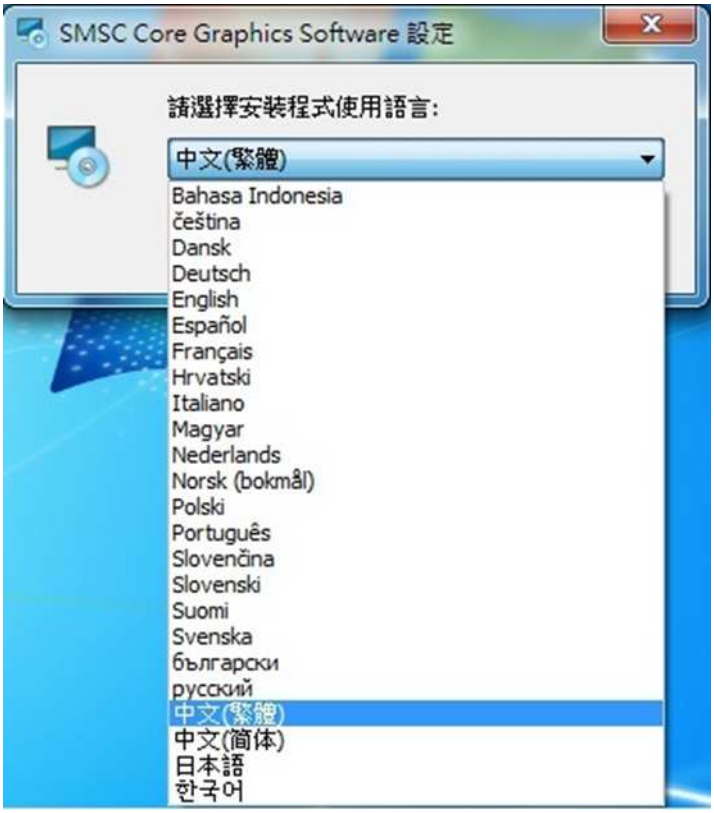
ZE6000

ZE6000+

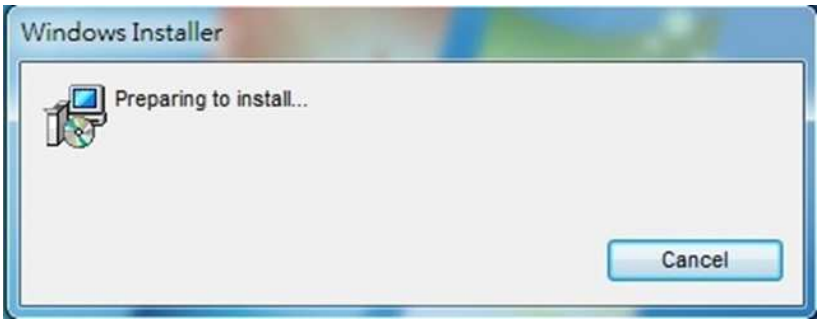
3.1 Please press “I Accept”


SMSC Core Graphics Software
End-User Licence Agreement
Please read the license agreement before accepting
Version 2.8.40.7443
YOU (THE INDIVIDUAL CLICKING ON THE ACCEPT BUTTON BELOW) FOR YOURSELF OR ANY ENTITY FOR WHOM YOU ARE AN EMPLOYEE OR AGENT AND WHICH OBTAINS THE SOFTWARE MADE THE SUBJECT OF THIS SOFTWARE LICENSE AGREEMENT, AGREE TO THE TERMS AND CONDITIONS OF THIS SOFTWARE LICENSE AGREEMENT (REFERRED TO AS THIS AGREEMENT or Agreement) BY EITHER (1) CLICKING ON THE ACCEPT BUTTON BELOW, OR (2) ACCESSING OR USING ANY OF SUCH SOFTWARE PROGRAMS OR CODE. PLEASE READ THIS AGREEMENT BEFORE CLICKING ON THE ACCEPT BUTTON. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, PLEASE DO NOT CLICK ON THE ACCEPT BUTTON.
BY CLICKING ON THE ACCEPT BUTTON BELOW, YOU (THE INDIVIDUAL CLICKING ON THE ACCEPT BUTTON BELOW) ALSO REPRESENT AND WARRANT THAT YOU ARE AUTHORIZED TO BIND TO THE TERMS AND CONDITIONS OF THIS AGREEMENT ANY ENTITY FOR
I Accept
Cancel

Please select and confirm the “Language”



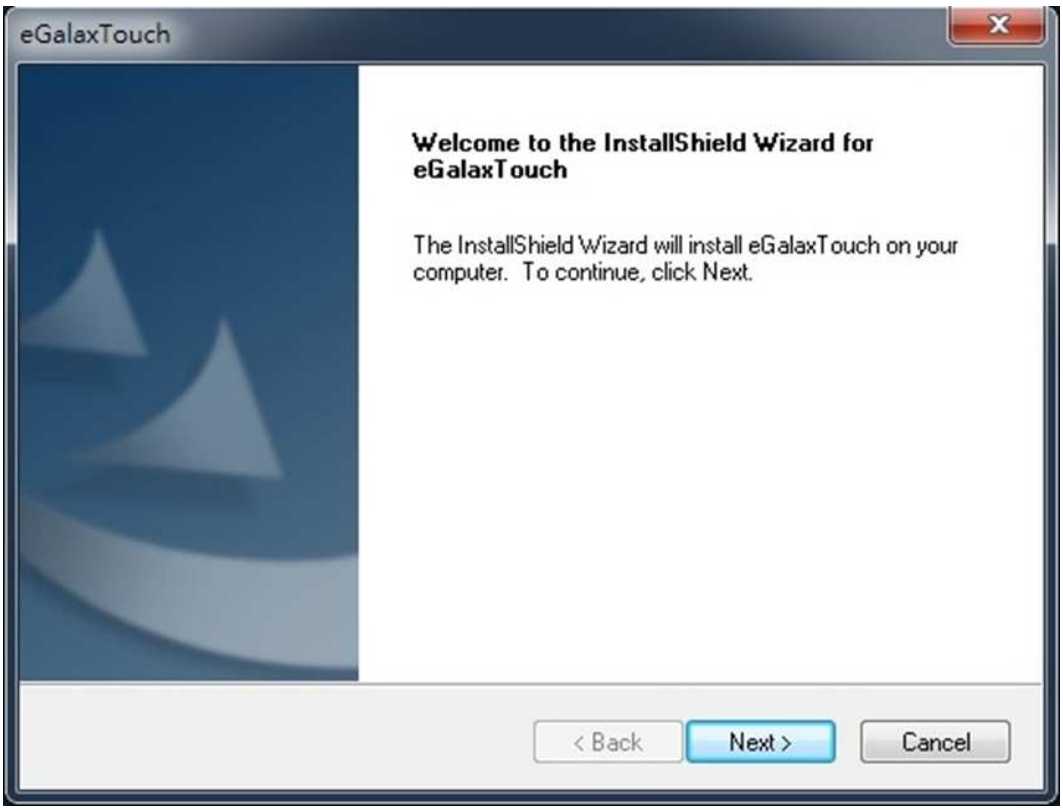
3.2 Installation start as below, installation run automatically and completed with no additional message, please restart your computer to complete it.



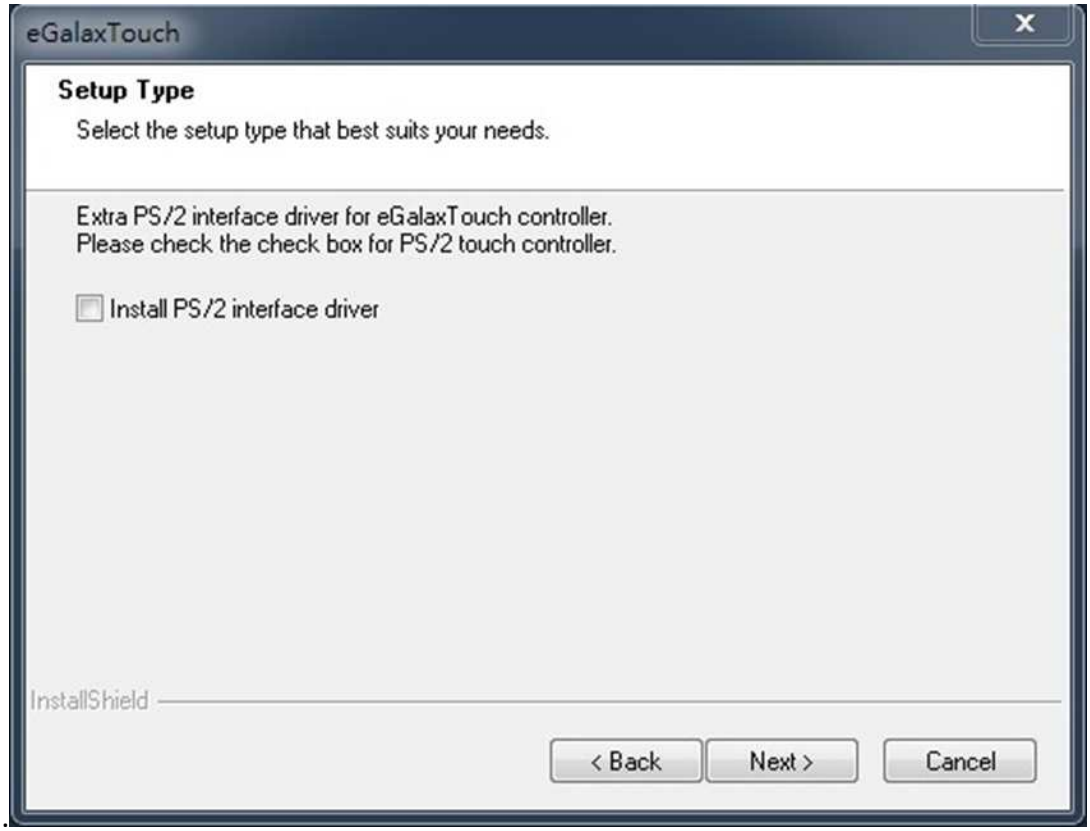
4.0 Install EETI Touch Driver (For Touch workstation only)

ZE6000 ZE6000+

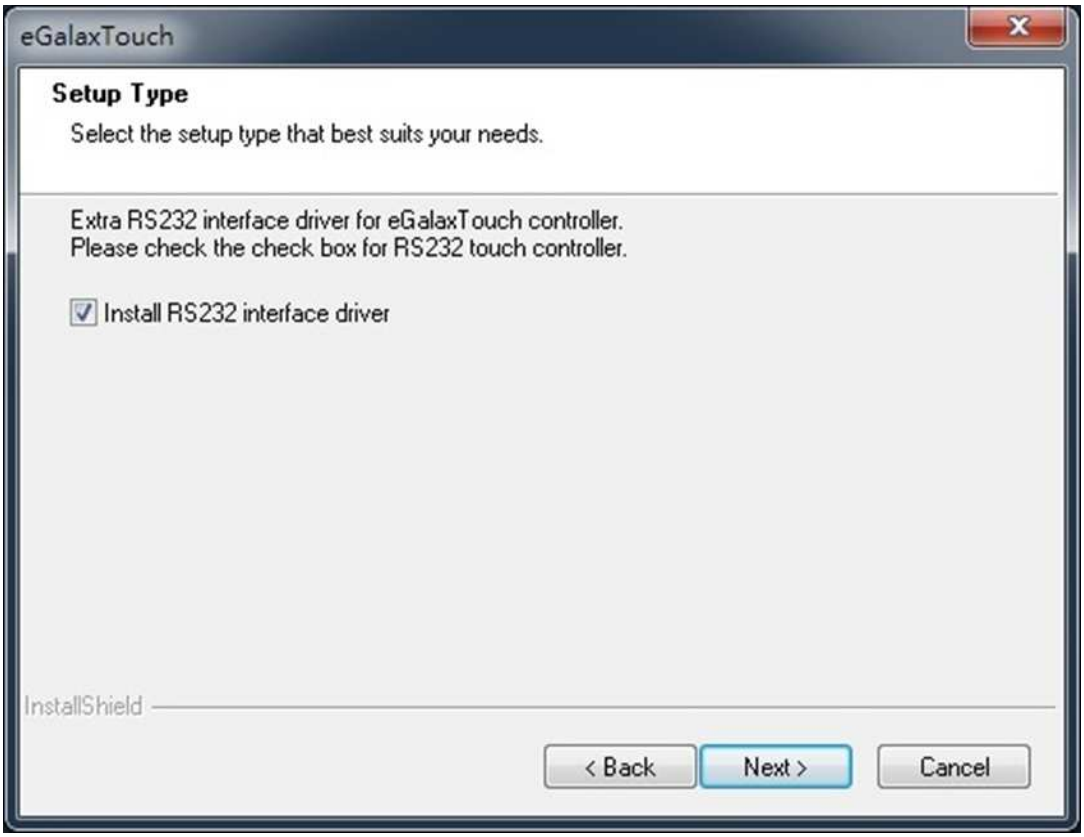
4.1 Screen display as below, please click Next.


eGalaxTouch
Welcome to the InstallShield Wizard for eGalaxTouch
The InstallShield Wizard will install eGalaxTouch on your computer. To continue, click Next.
< Back
Next >
Cancel

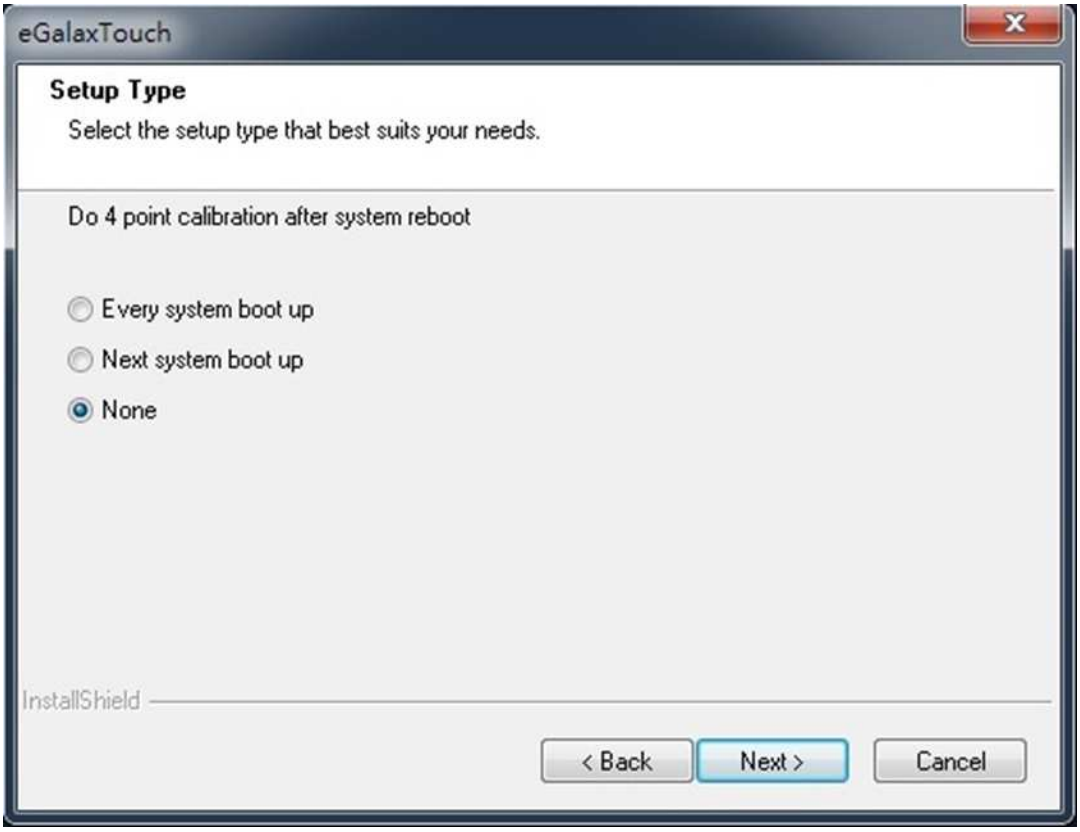
4.2 Select the set up type, don't tick the box if PS2 interface is not required, Click "Next>


eGalaxTouch
Setup Type
Select the setup type that best suits your needs.
Extra PS/2 interface driver for eGalaxTouch controller.
Please check the check box for PS/2 touch controller.
Install PS/2 interface driver
InstallShield
< Back
Next >
Cancel

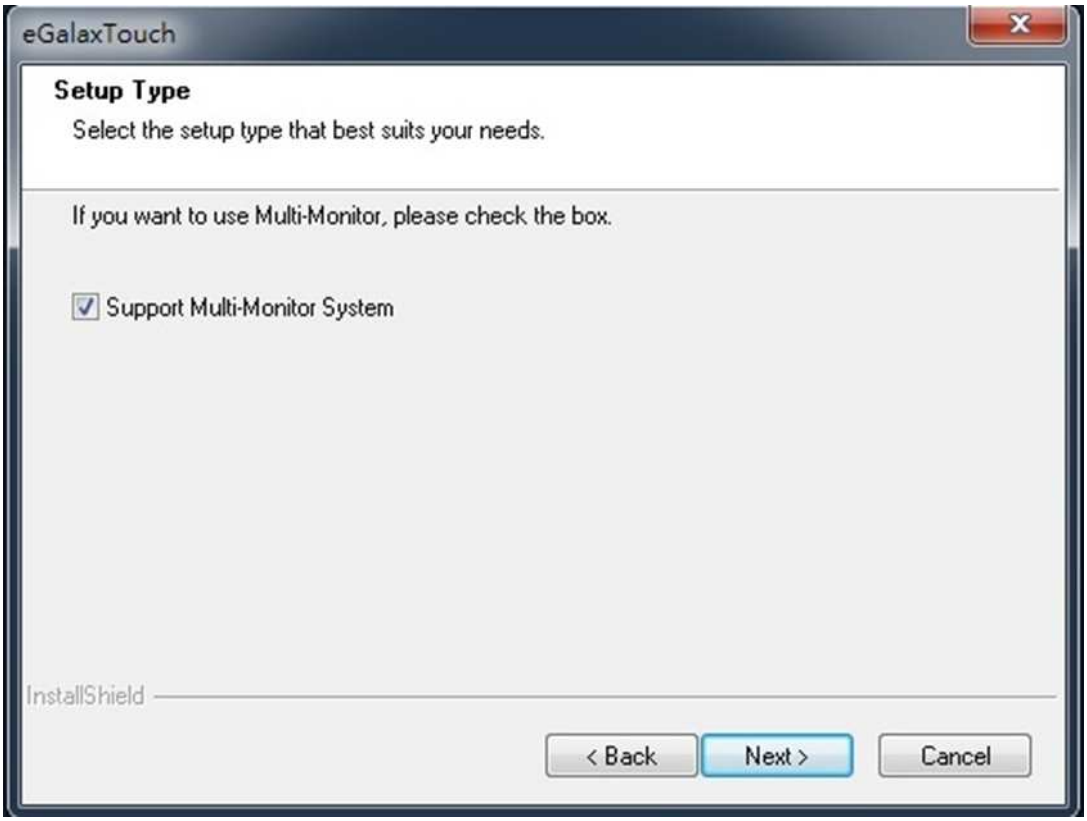
4.3 RS232 interface driver installed is default, please click Next>


eGalaxTouch
Setup Type
Select the setup type that best suits your needs.
Extra RS232 interface driver for eGalaxTouch controller.
Please check the check box for RS232 touch controller.
Install RS232 interface driver
InstallShield
< Back
Next >
Cancel

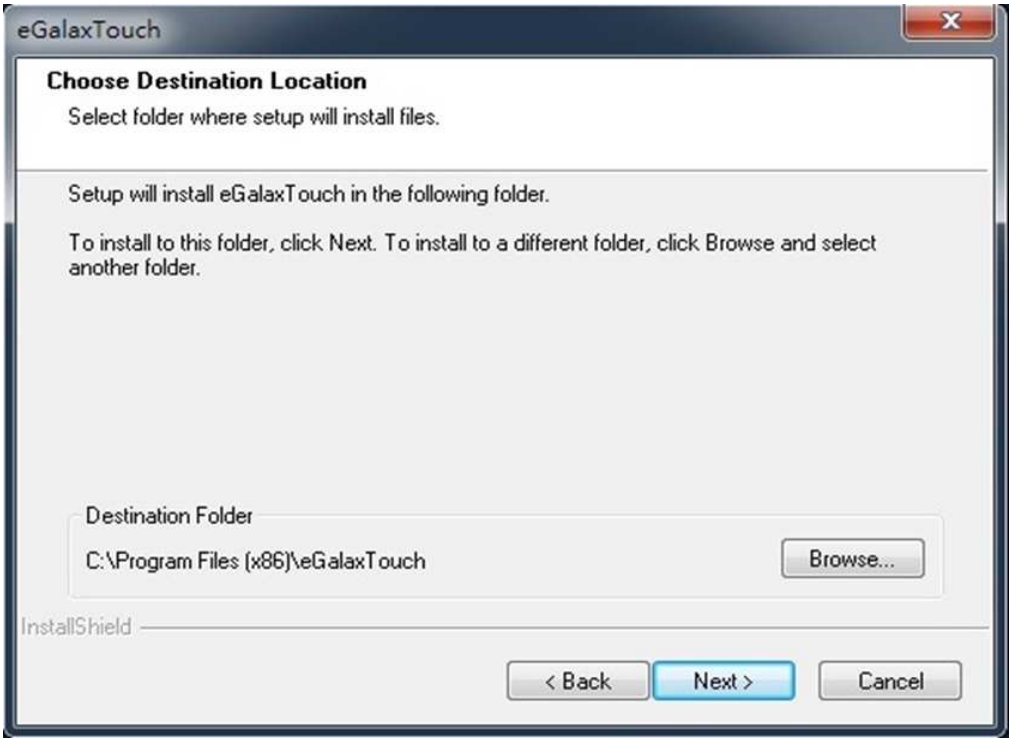
4.4 You can select to do Touch screen calibration after system boot up or not
Default setting is" None"



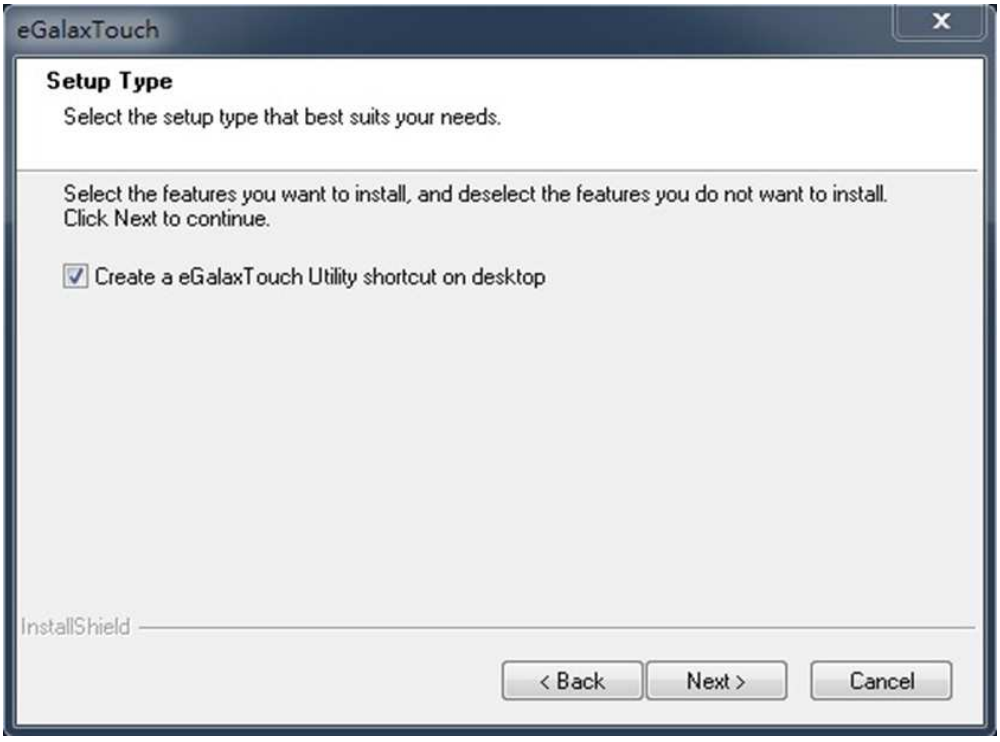
4.5 Select to use Multi-Monitor system, then press Next>



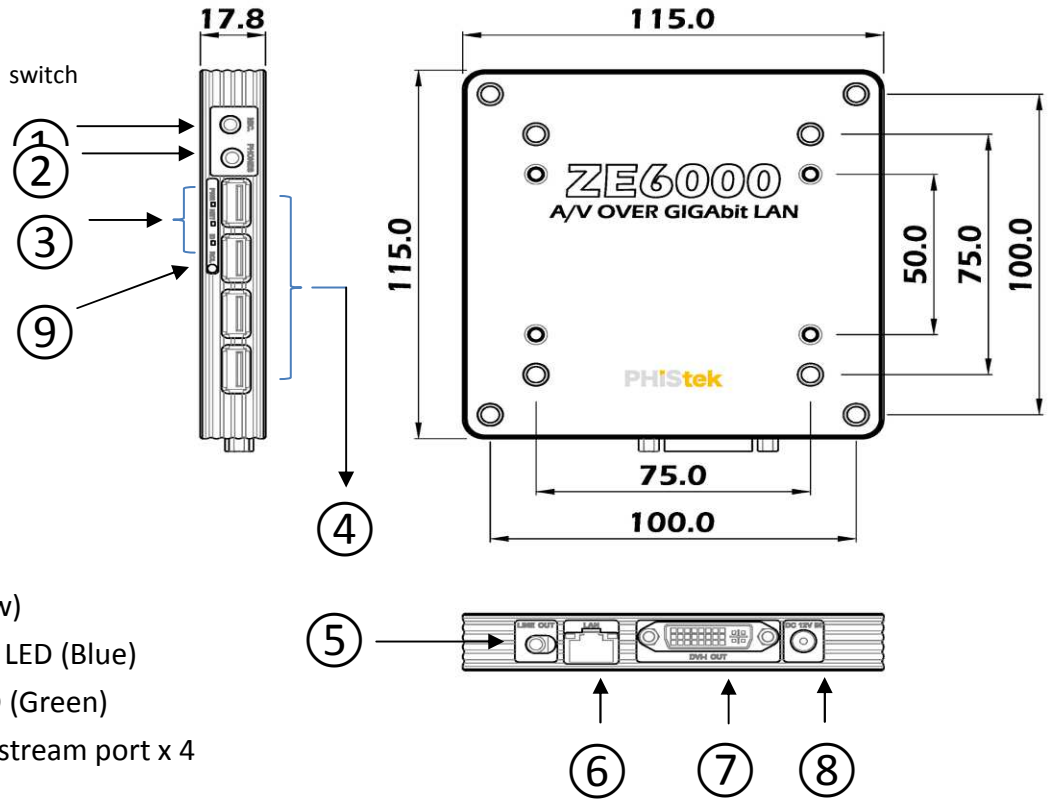
4.6 Choose destination location, default folder location shown as below.
Press Next>


eGalaxTouch
Choose Destination Location
Select folder where setup will install files.
Setup will install eGalaxTouch in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files (x86)\eGalaxTouch
Browse...
InstallShield
< Back
Next >
Cancel

4.7 As Figure shown below, please press Next> to complete installation

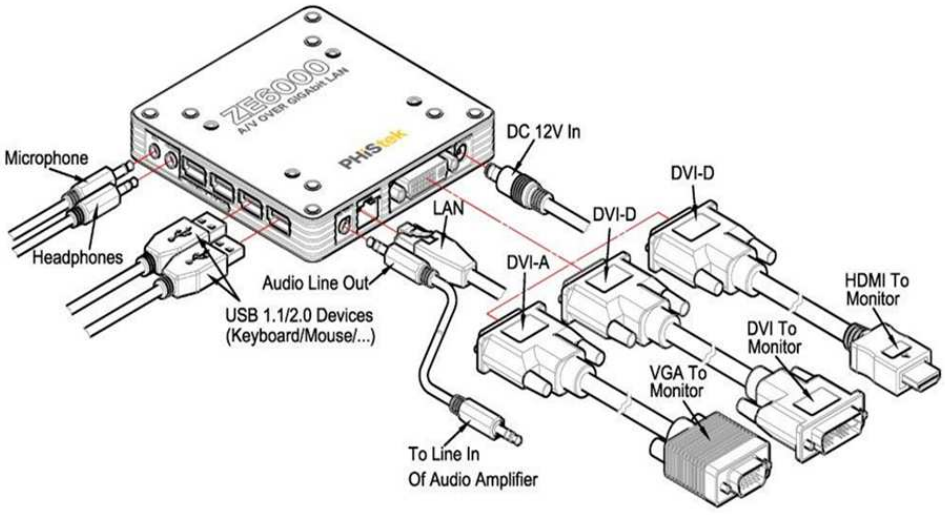

eGalaxTouch
Setup Type
Select the setup type that best suits your needs.
Select the features you want to install, and deselect the features you do not want to install.
Click Next to continue.
Create a eGalaxTouch Utility shortcut on desktop
InstallShield
< Back
Next >
Cancel

IV. Mechanical Dimension and Input/ Output ports description:



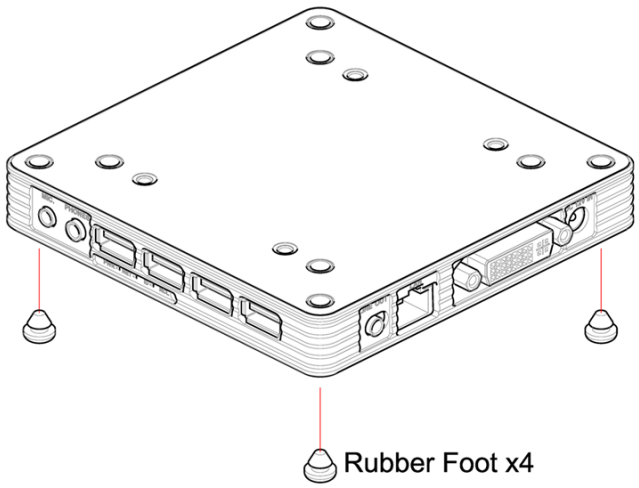
1. Microphone
2. Headphone
3. LED indicators
   Power LED (Yellow)
   Network connect LED (Blue)
   Identification LED (Green)
4. USB A type downstream port x 4
5. Line out
6. RJ-45 Ethernet connector
7. DVI – I connector
8. DC 12 V in
9. Reset (reset IP address)

V. Output signals installation:

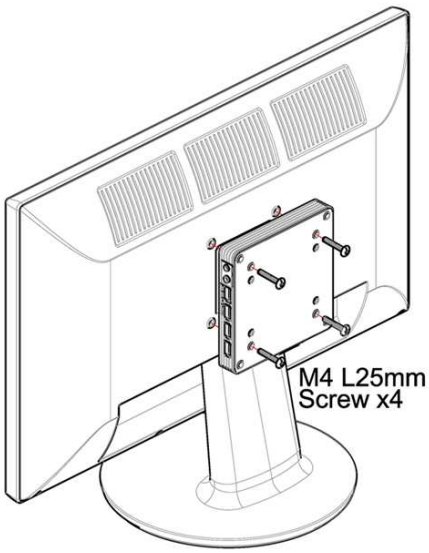


VI. Adaptor installation:

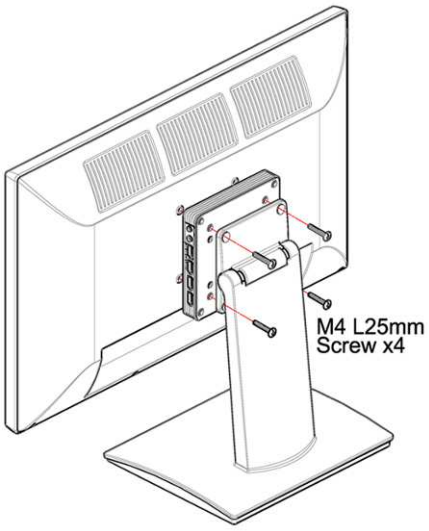
1. Type1:



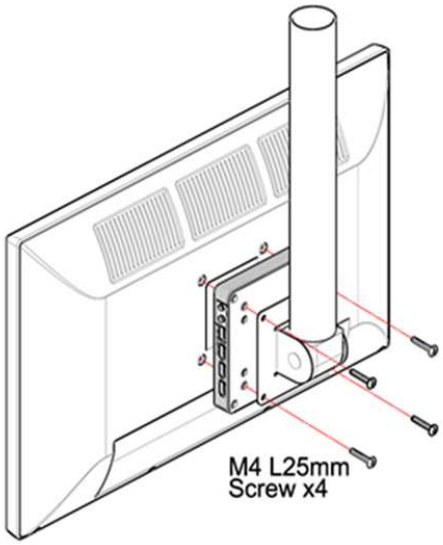
2. Type2:



3. Type3:



4. Type 4:



VII. FCC Warning Statement:

FCC Class A Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CISPR 22 Class A Warning

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

VIII. Product General Specification:

ZE6000/ ZE6000+ AV over Ethernet Adaptor		
Power	AC –DC adaptor	AC100V~240V, 50~60Hz DC power output: 12Vdc @1.5A
	LED indicators	Yellow: to indicate power Adaptor attached
		Blue: to indicate device connected to Host PC
		Green: to indicate device identified
Reset		Reset IP address
Input/output connectors	Ethernet input	x1 RJ-45, 10/100/1000Mb Ethernet
	USB downstream ports	x4 USB A type (USB 2.0)
	Video output	x1 DVI-I connector for VGA, DVI or HDMI Digital signal connection x1 DVI-I to VGA Dongle for VGA signal connection
	Audio output 1	x1 Line out
	Audio output 2	x1 headphone
	Audio input	x1 Microphone
Max. Video resolution		2048 x1152
Environmental	Operating temperature	0º C ~ 35º C
	Non-operating temperature	-30º C ~ 60º C
	Operating Humidity	10% ~ 90% (non-condensing)
	Non-operating Humidity	5 % ~ 95%
	Cooling	Fan-less
Mechanical	Mounting	4 VESA holes; 2 spaced at 100mm centers and 2 spaced at 75mm centers
	Dimensions W x D x H	115mm x 115mm x 17.8mm
	Weight	326g
Regulatory		FCC, CE
Compliance		WEEE, RoHS
Option	ZE6000+	Phistek SW access code embedded

Appendix

Network IP address setting:

- **Note: All zero clients' IP address shall be in the same segment**

  For example:

  Host PC: IP address=192.168.1.10, Subnet mask=255:255:255:0

  Zero clients shall be

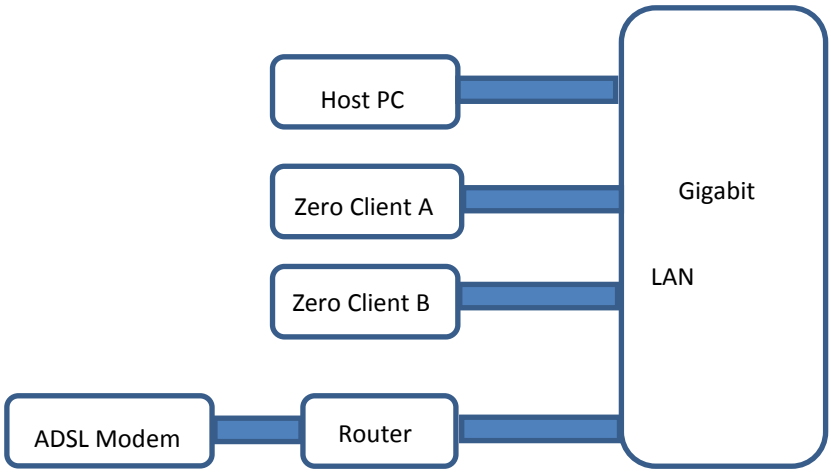
  IP=192.168.1.xxx, Subnet mask=255:255:255:0

- **There are two ways to set up IP address:**

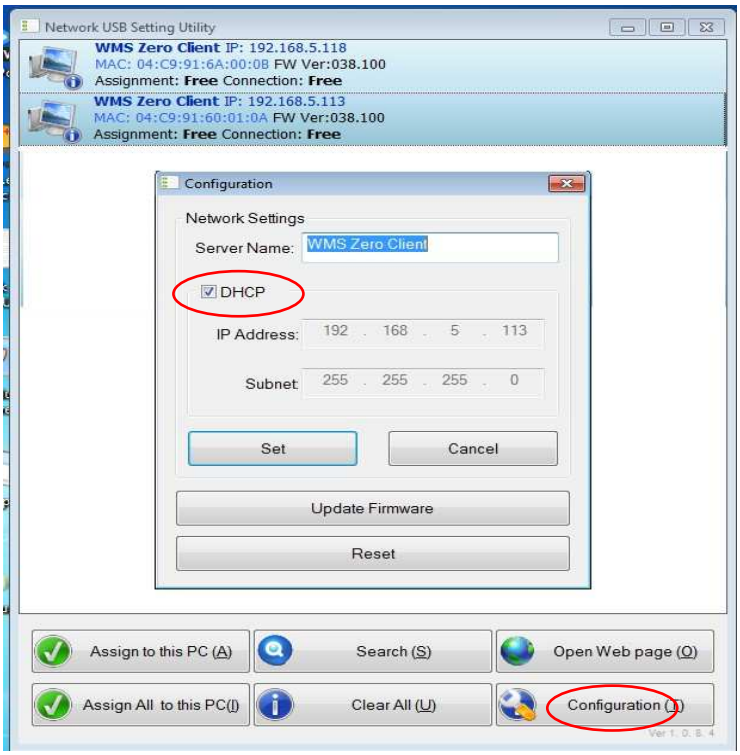
  DHCP:

  See a general home network diagram below as an example:

  Connect Host PC and zero clients to a network switch(better to use Gigabit switch). The Router will automatically assign IP via switch to devices connect to this switch



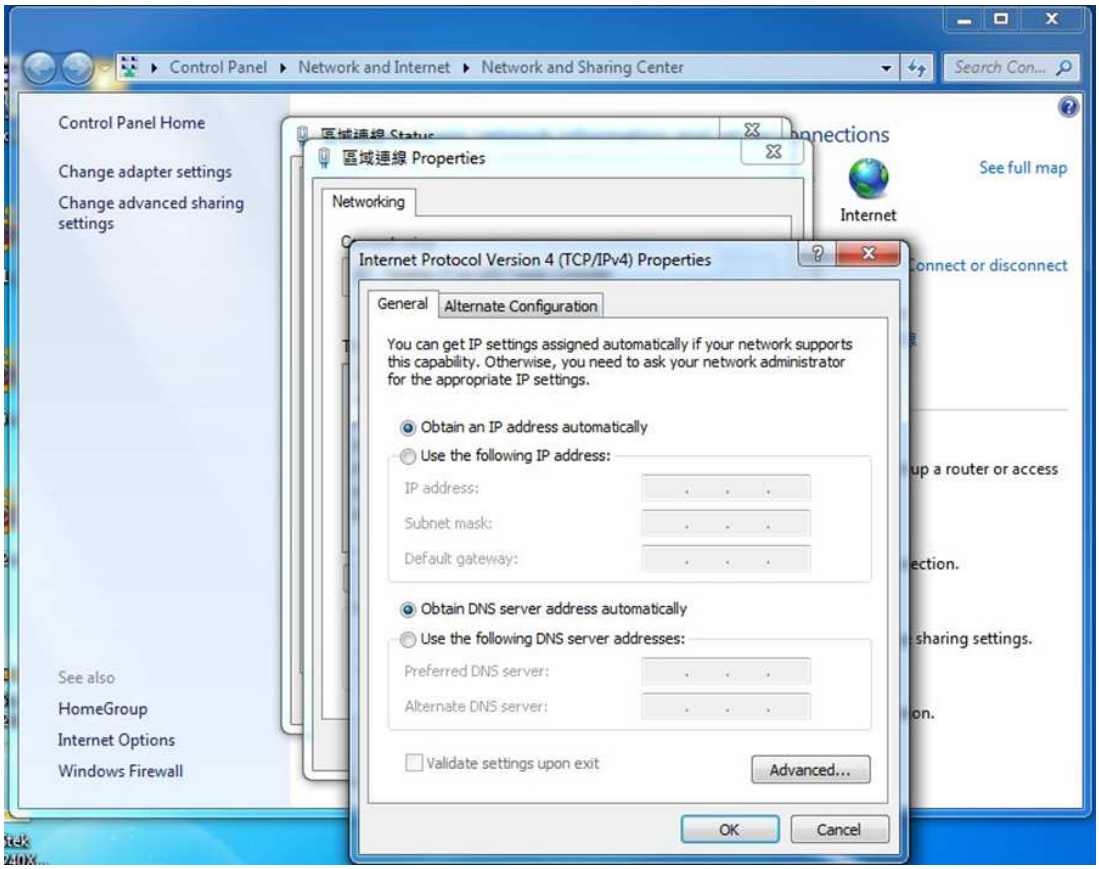
Check if zero clients are at DHCP status:



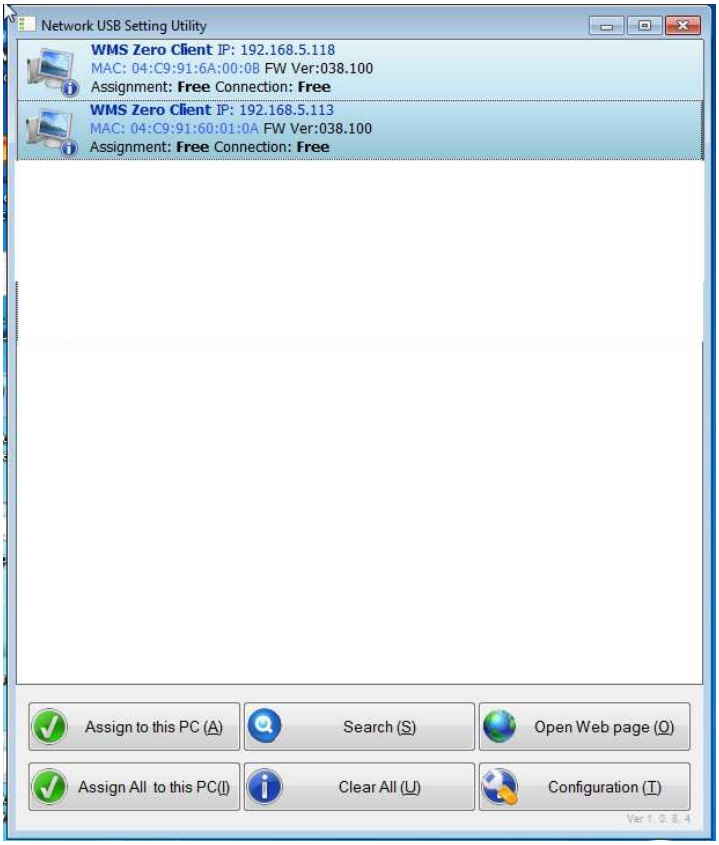
Click configuration, a set up table will appear, DHCP shall be ticked.

Set Host PC to DHCP: see below properties of IPV4

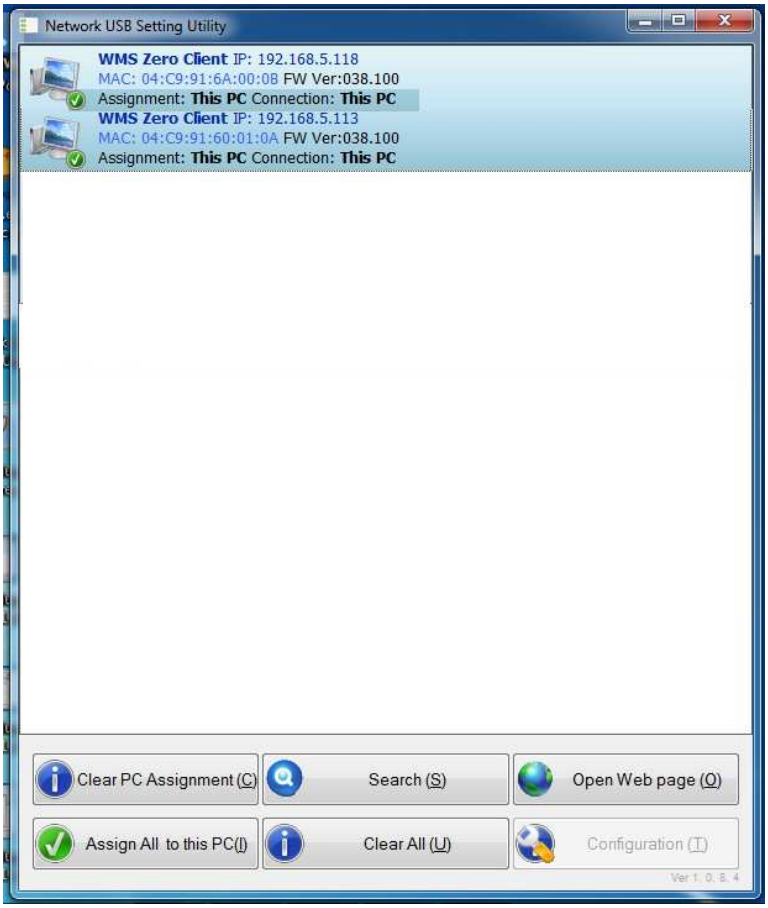
: tick “Obtain an IP address automatically



After all devices' IP address has been set up to DHCP, the router will assign IP automatically, the USB server utility will look like as below:

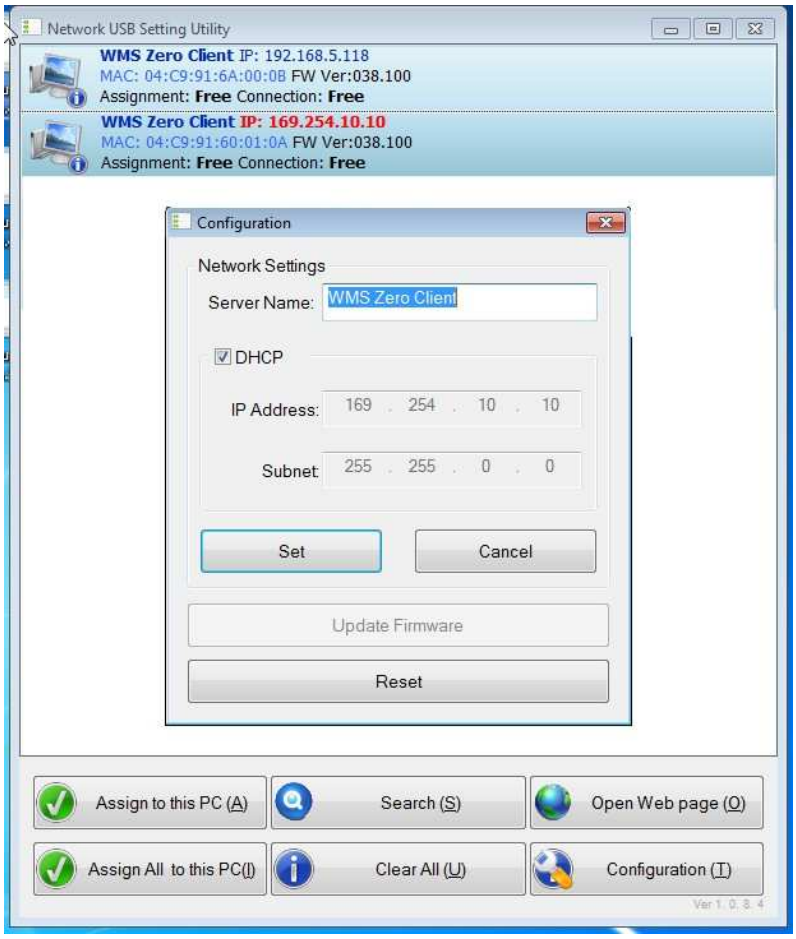


Click Assignment to this PC for each client, connection will be made:


Network USB Setting Utility
WMS Zero Client IP: 192.168.5.118
MAC: 04:C9:91:6A:00:0B FW Ver:038.100
Assignment: This PC Connection: This PC
WMS Zero Client IP: 192.168.5.113
MAC: 04:C9:91:60:01:0A FW Ver:038.100
Assignment: This PC Connection: This PC
Clear PC Assignment (C)
Search (S)
Open Web page (O)
Assign All to this PC(I)
Clear All (U)
Configuration (T)

If the client IP is not in the same segment, the IP address shown is RED, see example below:

Please tick “DHCP” to get DHCP IP.



Manual assign IP:

If the system is for local use(not connect to router to website),

you may also assign IP manually,

The IP address shall be in the same segment, and Subnet mask shall be the same.

For example:

Host PC: IP=192.168.1.1, subnet: 255:255:255:0

Zero Client A IP=192.168.1.11, subnet: 255:255:255:0

Zero Client B IP=192.168.1.12, subnet: 255:255:255:0.